REMARKS/ARGUMENTS

In response to the Office Action mailed October 5, 2006, Applicant requests continued examination. Formerly examined claims 1 and 2 remain pending and new claims 4-6 are added so that claims 1, 2, and 4-6 are now pending.

New claim 4 is supported by the description appearing at page 10, lines 1-11 of the patent application.

In new claim 5, the connector is expressly claimed and all of the elements of the printed circuit board are gathered together in the first paragraph of claim 5. The first paragraph of claim 5 describes the outermost-layer signal lines and their interconnections, all of which are clearly part of the printed circuit board. The elements of the connector are described in the second paragraph of claim 5. The plurality of connector lines within the connector is also described in the final lines of claim 5. New claim 6 is derived from examined claim 2.

As previously explained, an important feature of the invention is the essential equalization of the total lengths of a differential pair of signal lines through which the same signal passes. It is the outermost signal lines on the outermost surface of the printed circuit board and the correspondingly connected connector lines that are equalized in length to avoid signal skew.

Claims 1 and 2 were rejected as anticipated by Horine (U.S. Patent 6,072,699). This rejection is respectfully traversed.

Figure 1 of the patent application, as described at pages 2-7 of the patent application, depicts three types of signal lines. Of course, each of the signal lines has a corresponding length. These three types of signal lines include the connector lines exemplified by elements 3a and 3b. The outermost signal lines on the surface of the printed circuit board are represented by reference numbers 6a and 6b. The third type of signal line includes the internal layer signal lines 5a and 5b. According to the invention, the lengths of the connector lines and the outermost signal lines are equalized. By contrast, the signal lines made equal in length in Horine correspond to the outermost layer signal lines and the internal layer signal lines, as the lines are defined in the present patent application. Therefore, there is a substantial and fundamental difference between the invention as described in the pending claims and what is described by Horine.

Stated another way, Applicant agrees that Horine describes a printed circuit board structure in which certain signal line lengths are equalized to avoid skew. Those signal line lengths that are equalized comprise an external trace on an outermost layer of a printed circuit board *in combination with* the length of an internal layer signal line that is within the printed circuit board. That arrangement is not the claimed invention and cannot anticipate the claimed invention.

The printed circuit board described by Horine and to which attention was directed, includes terminals for receiving an edge connector. In Horine those terminals 410 are designated as being “an electrical connector”. This description is mis-descriptive according to the terms as employed in the art and is certainly not consistent with the use of the term connector in the invention. For example, although the depiction is schematic, Figure 1 of the present patent application indicates two connectors 20 and 20′ which clearly are separate from the board 30 that corresponds, in that embodiment, to the printed circuit board of the claims. For this additional reason, Horine cannot anticipate claims 1 and 2.

Further, Horine cannot anticipate new claims 5 and 6. Horine does not disclose any connector like the connector that is claimed in those claims. Further, Horine does not describe that the total lengths of respective connected *outermost-layer signal lines* and connector lines of the connector have substantially equal lengths. What is described in Horine is that respective outermost-signal lines and the corresponding internal-signal lines that are connected through respective via holes have equal lengths. Therefore, even if the surface terminals 410 in Horine were considered to be a connector, using the odd terminology of Horine, it is clear that the respective outermost-signal lines 531, 541, 551, 561, and 571 in combination with the respective connector elements 511, 512, 513, 514, and 515 do not have substantially equal lengths as in the structure according to claims 5 and 6. In fact, the entire purpose of Horine is to compensate for the different lengths of those outermost traces 531-571 by providing compensating internal traces. That objective, like the structure of Horine, is substantially different from the structure described in claims 5 and 6. Therefore, Horine cannot anticipate those claims.

Upon reconsideration, the rejection of claims 1 and 2 as anticipated by Horine should be withdrawn and those claims, as well as claims 4-6, should be allowed.

Respectfully submitted,

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